Attorney Docket No. LUKP119US U.S. Patent Application No. 10/711,404 Reply to Office Action of August 29, 2008

Date: November 17, 2008

## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## WHAT IS CLAIMED IS:

1. (currently amended) A method for controlling a motor vehicle drivetrain system, which motor vehicle drivetrain system has a drivetrain (122) and as well as a combustion engine (124) for the purpose of driving this drivetrain (122) and which motor vehicle drivetrain system, furthermore, has an electronic engine control unit (132) that controls the combustion engine (124) and as well as an electronic transmission control unit (110) for the purpose of controlling at least one of device arranged in the drivetrain, that is to say, torque transmission device (114, 116) and/or gearbox device (102, 106) where the electronic engine control unit (132) has a signal output upon which adjoins a signal transmission link and where the electronic engine control unit (132) via the this signal output and the this signal transmission link, at least when the electronic engine control unit (132) and as well as the signal transmission link are is functioning properly, will transmits signals in operation, which signals can be acquired by the electronic engine control unit (132), eharacterized in that comprising: determining, using the electronic engine control unit (132) on the basis of and the signals received or transmitted actually controlled by the electronic engine control unit (132), will determine whether there is a functional impairment in the unit from the device arranged in the drivetrain, that is to say, the torque transmission device (114, 116) and/or gearbox device, the actuation device (102, 106), or the electronic transmission control unit (110); and limiting, using and the signal transmission link where the electronic engine control unit (132), limits the maximum permissible engine torque of the combustion engine when it the electronic engine control unit (132) has determined a functional impairment. A method for controlling a motor vehicle drivetrain system, which 2. (currently amended)

motor vehicle drivetrain system has a gearbox device (102, 106) arranged in a drivetrain (122)

and/or at least one torque transmission device (114) arranged in drivetrain (122) where the motor

vehicle drivetrain system furthermore has a combustion engine (124) for the purpose of driving the drivetrain (122) as well as an electronic engine control unit (132) that controls the combustion engine (124) and an electronic transmission control unit (110) for the purpose of controlling the gearbox device (102, 106) and/or the at least one torque transmission device (114), characterized in that one determines comprising: determining whether between the electronic transmission control unit (110) and the electronic engine control unit (132) there is a data-or-signal-communication-or-there-is a functioning data-or-signal communication; and/or where one determines—whether the electronic transmission control unit (110), is indeed functionally impaired and/or where one determines whether the gearbox device the actuation device (102, 106), and/or the torque transmission device (114) is functionally impaired; and limiting where the maximum permissible engine torque of the combustion engine (124) is limited when it is determined that there is no data or signal communication and/or that there is a functionally impaired data or signal communication between the electronic transmission control unit (110) and the electronic engine control unit (132) and/or the maximum permissible engine torque of the combustion engine (124) is limited when it is determined that the electronic transmission control unit (110), is functionally impaired and/or the maximum permissible engine torque of the combustion engine (124) is limited when it is determined that the gearbox device the actuation device (102, 106), or and/or the torque transmission device (114) is functionally impaired.

3. (currently amended) A method for controlling a motor vehicle drivetrain system, which motor vehicle drivetrain system has a gearbox device (102, 106) arranged in a drivetrain (122) and/or at least one torque transmission device (114) arranged in drivetrain (122) where the motor vehicle drivetrain system furthermore has a combustion engine (124) for the purpose of driving the drivetrain (122) as well as an electronic engine control unit (132) that controls the combustion engine (124) and an electronic transmission control unit (110) for the purpose of controlling the gearbox device (102, 106) and/or at least one torque transmission device (114), characterized in that one determines comprising: determining whether between the electronic transmission control unit (110) and the electronic engine control unit (132) there is a data or

signal communication or there is a functioning data or signal communication and/or where one determines whether the electronic transmission control unit (110) is indeed functionally impaired and/or where one determines whether the gearbox device (102, 106) and/or the torque transmission device (114) is functionally impaired; ascertaining a speed of the vehicle (100), a status of a brake (140) of the motor vehicle (100), torque for the idle controller, or a position for a selection lever that can be actuated by a driver of the vehicle; and, turning off where the combustion engine (124) is turned off when it is determined that there is no data or signal communication and/or that there is a functionally impaired data or signal communication between the electronic transmission control unit (110) and the electronic engine control unit (132), and/or the combustion engine (124) is turned off when it is determined that or the electronic transmission control unit (110) is functionally impaired, or and/or the combustion engine (124) is turned off when it is determined that there is a functional impairment in the gearbox device (102, 106) and/or in the torque transmission device (114) and when in each case it is additionally ascertained that the brake (140) of motor vehicle (100) is actuated, or and/or when it is additionally ascertained in each case that the vehicle speed is less than a predetermined speed limit, or and/or when it is additionally ascertained that the engine speed is less than a predetermined boundary, or and/or when it is additionally ascertained that the idle controller torque is greater than a predetermined boundary value, or and/or when it is additionally ascertained that a the selection lever that can be actuated by the driver is neither in the park position nor in the neutral position.

4. (currently amended) The method according to Claim 2, characterized in that one determines further comprising: determining by means of the electronic engine control unit (132) whether there is a data or signal communication or a functioning data or signal communication between the electronic transmission control unit (110) and the electronic engine control unit (132) and/or where one determines by means of the electronic engine control unit (132) whether the electronic transmission control unit (110) is functionally impaired and/or where one determines by means of electronic engine control unit (132) whether the gearbox device (102, 106) and/or the torque transmission device (114) are functionally impaired and/or limiting where

the maximum permissible engine torque is limited by means of the electronic engine control unit (132) and/or turning off where the combustion engine (124) is turned off by means of the electronic engine control unit (132).

- 5. (currently amended) The method according to Claim 3, characterized in that one determines further comprising: determining by means of the electronic engine control unit (132) whether there is a data or signal communication or a functioning data or signal communication between the electronic transmission control unit (110) and the electronic engine control unit (132) and/or where one determines by means of the electronic engine control unit (132) whether the electronic transmission control unit (110) is functionally impaired and/or where one determines by means of electronic engine control unit (132) whether the gearbox device (102, 106) and/or the torque transmission device (114) are functionally impaired; or and/or where limiting the maximum permissible engine torque is limited by means of the electronic engine control unit (132); or and/or where turning off the combustion engine (124) is turned off by means of the electronic engine control unit (132).
- 6. (withdrawn) A method for controlling a motor vehicle drivetrain system, which has a drivetrain (122) that can be loaded by means of a combustion engine (124) as well as an electronic engine control unit (132) for the purpose of controlling the combustion engine (124) and an electronic transmission control unit (110), whereby the electronic engine control unit (132) determines by means of a predetermined characteristic whether it has lost communication with the electronic transmission control unit (110) and where the electronic engine control unit (132) limits the maximum permissible engine torque when it ascertains that it has lost communication with the electronic transmission control unit (110).
- 7. (withdrawn) The method according to Claim 6, characterized in that the electronic transmission control unit (110) will alter an alive counter in a predetermined manner if there is a data or signal communication or a functioning data or signal communication between the electronic transmission control unit (110) and the electronic engine control unit (132) and/or if the electronic transmission control unit (110) is functioning and/or if the signal transmission link is properly functioning, while the electronic engine control unit (132) determines whether the

Attorney Docket No. LUKP119US U.S. Patent Application No. 10/711,404

Reply to Office Action of August 29, 2008

Date: November 17, 2008

alive counter is altered in the predetermined manner and if the alive counter is not altered in the predetermined manner or is not altered correctly, it ascertains that there is no data or signal communication and/or that there is a functionally impaired data or signal communication between the electronic transmission control unit (110) and the electronic engine control unit (132) and/or ascertains that the electronic transmission control unit (110) and/or the signal transmission link are functionally impaired, in particular, that they have failed.

8. (withdrawn) The method according to Claim 7, characterized in that the alive counter is a signal that represents a numerical value and that at predetermined time intervals a CAN bus is transmitted from the electronic transmission control unit, whereby the particular following signal is altered in a predetermined manner when compared to the particular preceding one, where the electronic engine control unit (132) determines whether this signal is altered in the predetermined manner and where it ascertains, if there is no change or if there is no correct change according to the predetermined manner, that there is no data or signal communication or a functionally impaired data or signal communication between the electronic transmission control unit (110) and the electronic engine control unit (132) and/or ascertains that the electronic transmission control unit (110) and/or the signal transmission link is functionally impaired, in particular, has failed.

9. (withdrawn) The method according to Claim 8, characterized in that one determines whether the electronic transmission control unit (110) transmits predetermined signals to a CAN bus system (142) where, when it is ascertained that the electronic transmission control unit (110) does not transmit these predetermined signals to a CAN bus system (142), it is then ascertained that there is no data or signal communication or a functionally impaired data or signal communication between the electronic transmission control unit (110) and the electronic engine control unit (132) and/or it is ascertained that the electronic transmission control unit (110) has failed and/or that the signal transmission link has failed.

10. (withdrawn) The method according to Claim 9, characterized in that the maximum permissible engine torque is limited to an upper boundary value, the engine torque boundary, and that there is provided precisely one engine torque boundary to limit the maximum permissible

Attorney Docket No. LUKP119US U.S. Patent Application No. 10/711,404

Reply to Office Action of August 29, 2008

Date: November 17, 2008

engine torque.

11. (withdrawn) The method according to Claim 10, characterized in that the maximum permissible engine torque is limited to an upper boundary value, the engine torque boundary, and that several engine torque boundaries are provided to limit the maximum permissible engine

torque.

12. (withdrawn) The method according to Claim 11, characterized in that the engine torque

boundary for the maximum permissible engine torque or any engine torque boundary is a

constant value for the maximum permissible engine torque.

13. (withdrawn) The method according to Claim 12, characterized in that the engine torque

boundary for the maximum permissible engine torque or any or at least one engine torque

boundary for the maximum permissible engine torque is a functional interrelationship.

14. (withdrawn) The method according to Claim 13, characterized in that in order to limit

the maximum permissible engine torque, one selects an engine torque boundary for the

maximum permissible engine torque from a plurality of predetermined engine torque boundaries

for the maximum permissible engine torque and that the maximum permissible engine torque is

limited in accordance with this selected engine torque boundary.

15. (withdrawn) The method according to Claim 14, characterized in that the engine torque

boundary for the maximum permissible engine torque is selected or determined as a function of

at least one operating parameter of the motor vehicle and that the maximum permissible engine

torque is limited in accordance with this selected or determined engine torque boundary.

16. (withdrawn) The method according to Claim 15, characterized in that the engine torque

boundary for the maximum permissible engine torque is selected or determined as a function of

the position of a part of the motor vehicle that can be actuated by the driver and that the

maximum permissible engine torque is limited in accordance with this selected or determined

engine torque boundary.

17. (withdrawn) The method according to Claim 16, characterized in that the engine torque

boundary for the maximum permissible engine torque is selected or determined as a function of

the position of a gas pedal of the motor vehicle and that the maximum permissible engine torque

7

Attorney Docket No. LUKP119US U.S. Patent Application No. 10/711,404

Reply to Office Action of August 29, 2008 Date: November 17, 2008

is limited in accordance with this selected or determined engine torque boundary.

18. (withdrawn) The method according to Claim 17, characterized in that there is provided a service brake (140) of the motor vehicle (100) that can generate a predetermined braking torque and that the engine torque boundary for the maximum permissible engine torque is set at a

value that is a function of that braking torque.

19. (withdrawn) The method according to Claim 18, characterized in that the engine torque boundary for the maximum permissible engine torque is set at a value that is lesser than or equal to the quotient from the braking torque that can be generated by the service brake (140) and the currently given and/or maximally or minimally selectable gear ratio in the drivetrain (122)

between the engine output shaft and the driving axles (130) of the motor vehicle (100).

20. (withdrawn) The method according to Claim 19, characterized in that the electronic transmission control unit (110) sends out at least one signal which indicates whether there is a functional impairment in the gearbox unit (102, 106) and/or the torque transmission device (114) where the electronic engine control unit (132) monitors this signal to determine whether there is a functional impairment in the torque transmission device (114, 116) and/or the gearbox device (102, 106) or in the unit comprising the torque transmission device (114, 116) and/or the gearbox device (102, 106) and ascertains that such a functional impairment exists when this signal indicates a functional impairment of the torque transmission device (114, 116) and/or a gearbox device (102, 106).

21. (currently amended) A safety system for a motor vehicle (100), where the this safety system can receive, transmit and process electronic signals and has a memory device (136) in which there is stored at least one control program (138) that controls a method according to Claim 1.

22. (currently amended) The safety system according to Claim 21, characterized in that wherein the safety system (134) comprises an electronic engine control unit (132) and that this the electronic engine control unit (132) can receive, transmit and process electronic signals and has the memory device (136) in which there is stored at least the control program (138) that controls said method.

A motor vehicle with a drivetrain system, which drivetrain system 23. (currently amended) has a drivetrain (122) that at the driving end is coupled with a combustion engine (124) and when in operation is loaded by it the combustion engine (124) and that on the power output side is coupled with wheels (126, 128) of the motor vehicle (100) so that these wheels (126,128) can be driven by means of combustion engine (124), whereby in this drivetrain (122) there is arranged a transmission (102) that can be actuated by means of a gearbox actuation device (106) by means of which one can alter the gear ratio given in the drivetrain (122) between the combustion engine (124) and the drivable wheels (126, 128) can be altered where, furthermore, at least there is in the drivetrain (122) a starting clutch (114) that can be actuated by means of a clutch actuation device (116) and where the drivetrain system has an electronic engine control unit (132) for the purpose of controlling the combustion engine (124) and as well as an electronic transmission control unit (110) to control the gearbox device (102, 106) or a gearbox actuation device (106) and/or the starting clutch (114) or clutch actuation device (116), whereby a brake (140) is provided for the purpose of braking the motor vehicle (100) where there is furthermore provided an idle controller that controls the combustion engine (124) or a fuel calculation member in operation in such a way that the engine torque is will be increased when the engine speed falls below the idle speed in order to raise the engine speed to or above that idle speed and where the engine output as well as the selectable gear ratios of the drivetrain (122) and where the regulatory function of the idle controller functions so are such that at least in case of a selectable gear ratio and if the drivetrain (122) is engaged, the engine torque could be raised to a value that is such that in case of this the selectable gear ratio, the braking torque of the brake (140) would not suffice to bring about a deceleration of the device (100), whereby, furthermore, there is provided a safety system (134) according to Claim 21, which ensures that this motor vehicle (100) can be braked by means of this brake (140) with the drivetrain (122) engaged and with each gear ratio that can be selected in this drivetrain (122).